

DATE: 9-19-88

APPROVED BY: D.D.P.

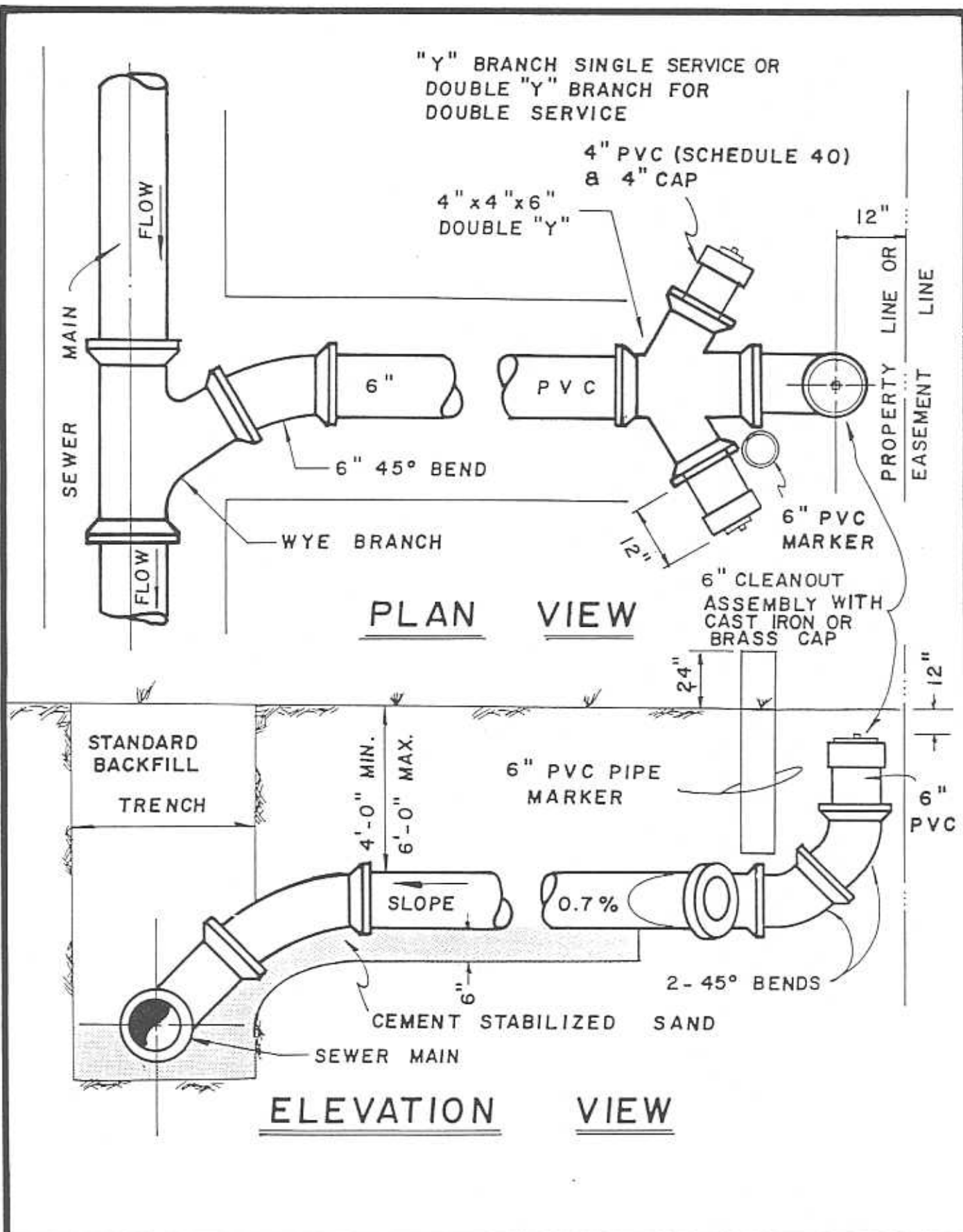
DESIGN BY: K.R.K.

SCALE: N.T.S.

DRAWING NO.: S-100

CITY OF SUGAR LAND
DEPARTMENT OF PUBLIC WORKS

**SANITARY SEWER
STACK**



DATE: 9 - 19 - 88

APPROVED BY: D.D.P.

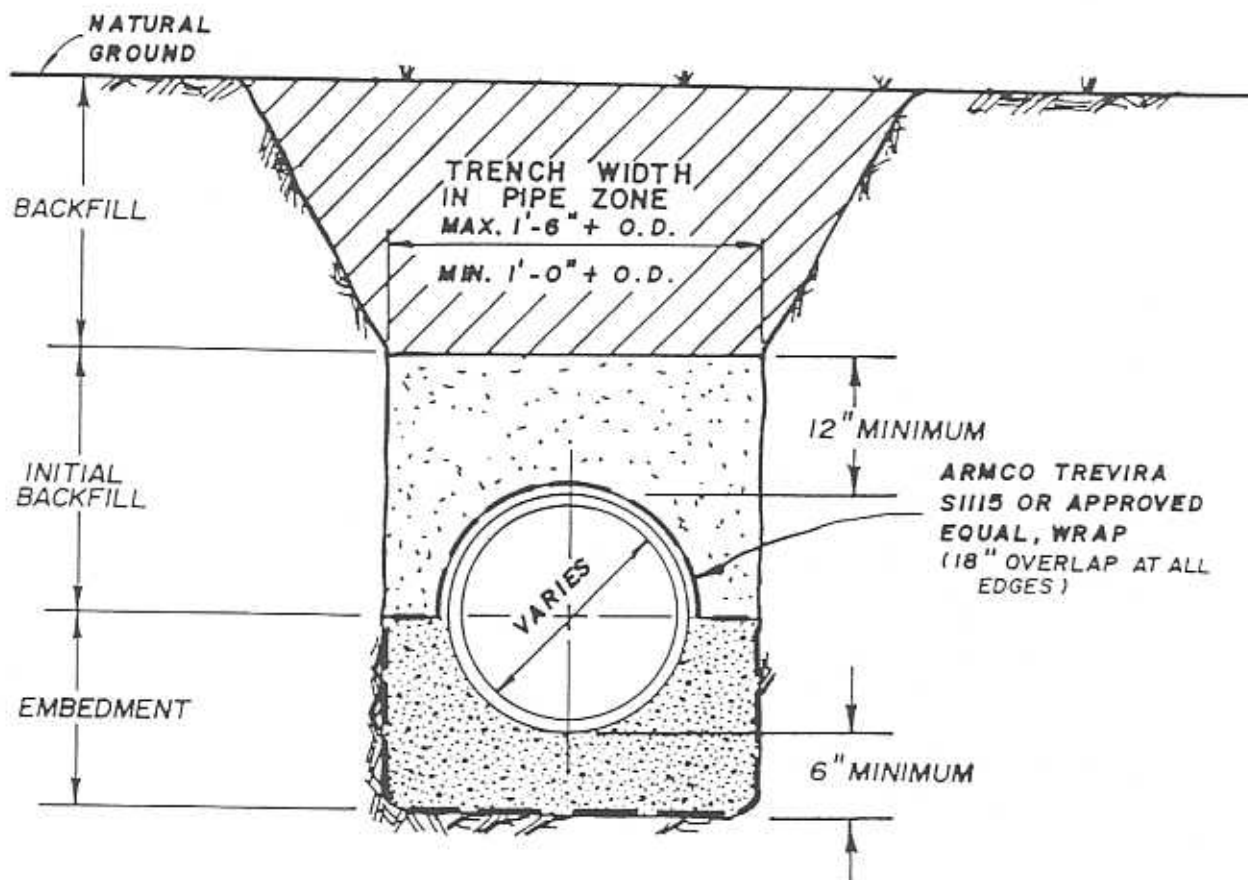
DESIGN BY: K.R.K.

SCALE: N.T.S.

DRAWING NO.: S-101

CITY OF SUGAR LAND
DEPARTMENT OF PUBLIC WORKS

**SANITARY SEWER
SERVICE CONNECTION**



NOTES:

1. Embedment shall be washed shell, gravel, or approved granular material.
2. Backfill shall be native material, free of debris, compacted to 80% Standard Proctor Density.
3. Initial backfill shall be uniformly graded material (maximum size, 3" diameter), placed in 8" lifts and compacted to 90% Standard Proctor Density.
4. Under paving, the initial backfill and all backfill up to the pavement subgrade shall be cement stabilized sand (1.5 sacks per cubic yard minimum) compacted to 95% Standard Proctor Density.
5. Trench shoring, in accordance with OSHA, shall be installed where required.
6. Modified sewer bedding shall be used in wet ground conditions for non-cohesive soils with a shear strength less than 1000 psi.

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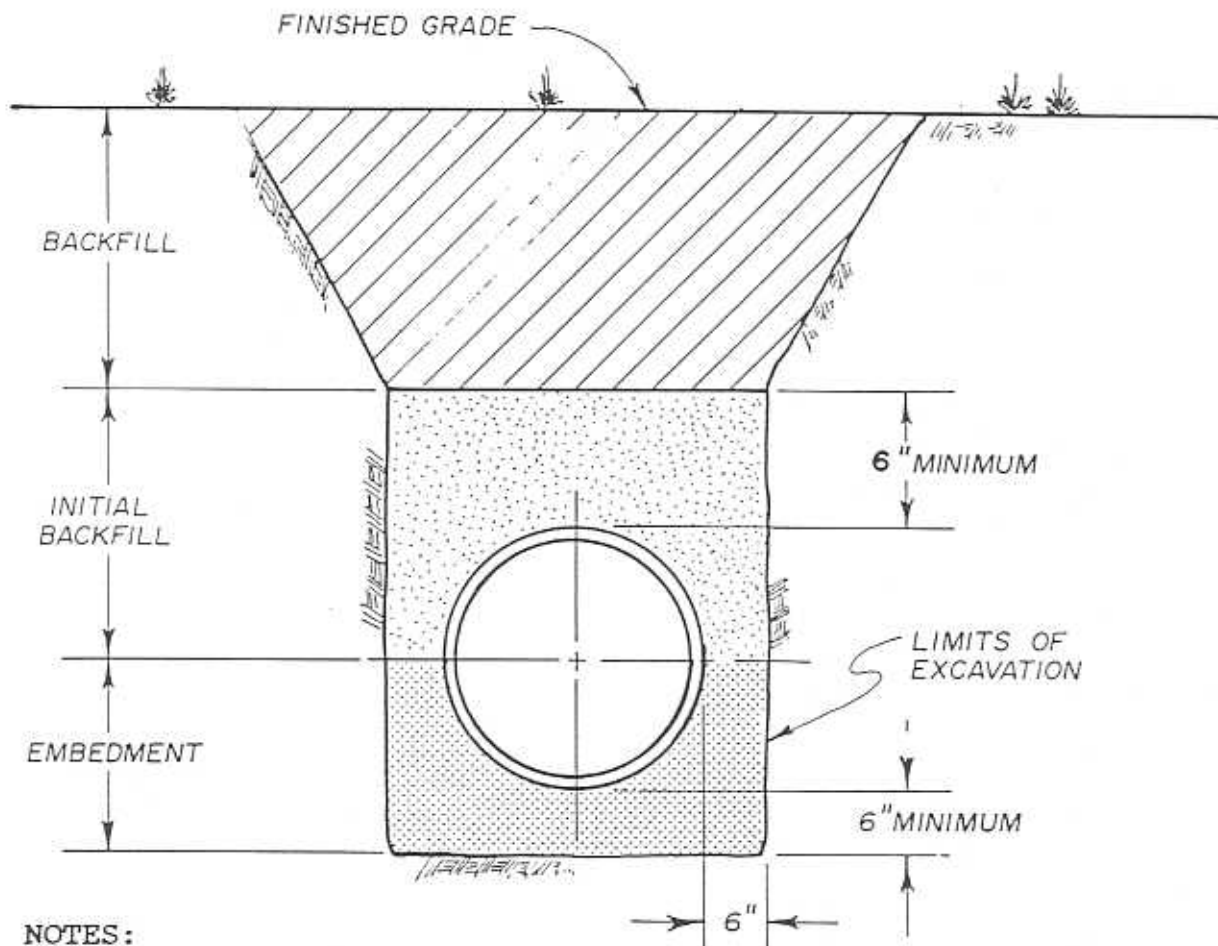
DESIGN BY: K.R.K.

SCALE: N.T.S.

DRAWING NO.: S - 102

CITY OF SUGAR LAND
DEPARTMENT OF PUBLIC WORKS

**MODIFIED SEWER
BEDDING & BACKFILL**



NOTES:

1. Backfill shall be native soil, free of debris, compacted to 80% Standard Proctor Density.
2. Initial backfill shall be uniformly graded material (maximum size, 3" diameter), placed in 8" lifts and compacted to 90% Standard Proctor Density.
3. Embedment shall be cement stabilized sand (1.5 sacks per cubic yard) compacted to 95% Standard Proctor Density.
4. Under paving or within 3' of pavement, the initial backfill and all backfill up to the pavement subgrade shall be cement stabilized sand (1.5 sacks per cubic yard) compacted to 95% Standard Proctor Density.
5. Trench shoring, in accordance with OSHA, shall be installed where required.
6. Soil in the pipe zone shall consist of non-waterbearing, cohesive soils with a shear strength of 1000 psi or greater. When wet sand exists in the pipe zone, modified bedding shall be installed.

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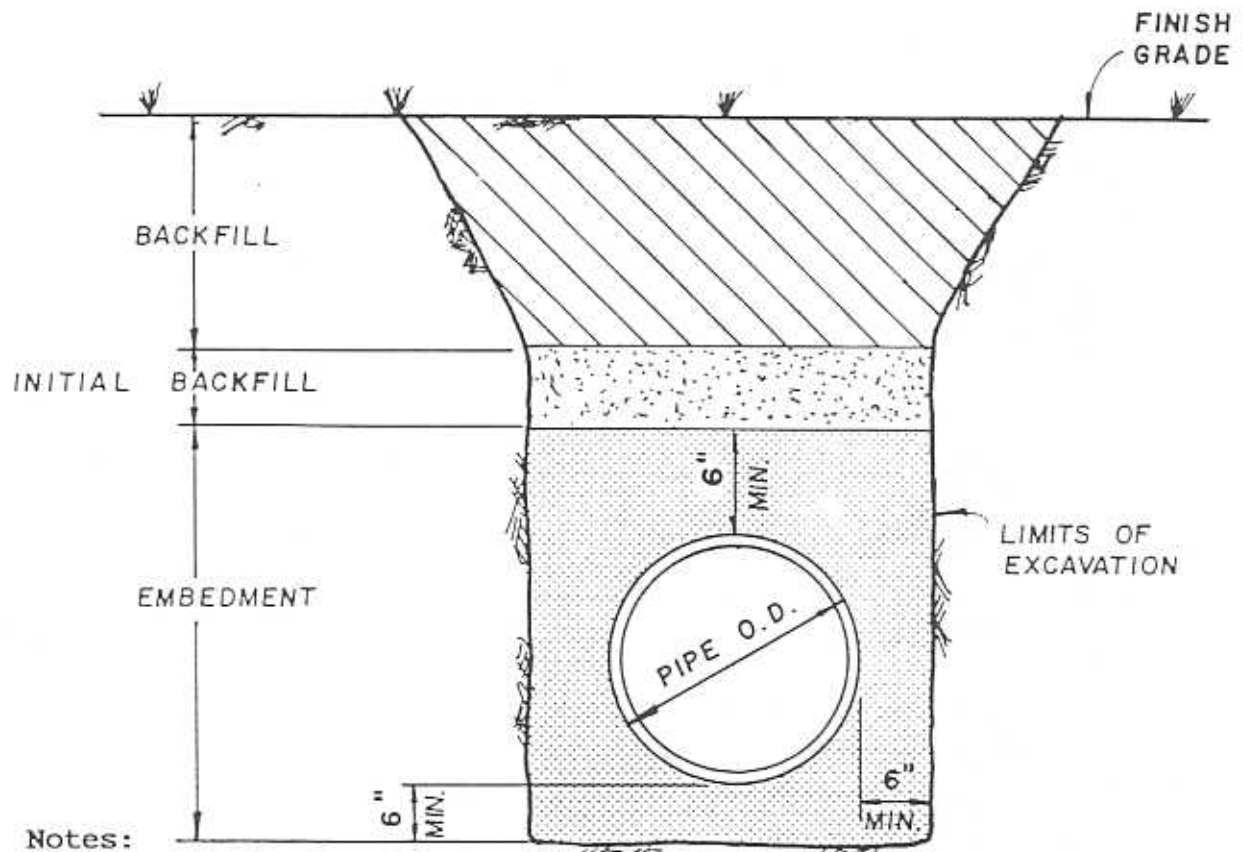
DESIGN BY: K.R.K.

SCALE: N.T.S.

DRAWING NO.: S - 103

CITY OF SUGAR LAND
DEPARTMENT OF PUBLIC WORKS

**SANITARY SEWER
BEDDING & BACKFILL**
(FLOWLINE LESS THAN 8' DEEP)



1. Backfill shall be native soil, free of debris, compacted to 80% Standard Proctor Density.
2. Initial backfill shall be uniformly graded material (maximum size, 3" diameter), placed in 8" lifts and compacted to 90% Standard Proctor Density.
3. Embedment shall be cement stabilized sand (1.5 sacks per cubic yard) compacted to 95% Standard Proctor Density.
4. Under paving or within 3' of pavement, the initial backfill and all backfill up to the pavement subgrade shall be cement stabilized sand (1.5 sacks per cubic yard) compacted to 95% Standard Proctor Density.
5. Trench shoring, in accordance with OSHA, shall be installed where required.
6. Soil in the pipe zone shall consist of non-waterbearing, cohesive soils with a shear strength of 1000 psi or greater. When wet sand exists in the pipe zone, modified bedding shall be installed.

DATE: 5-28-89

APPROVED BY: D.D.P.

DESIGN BY: K.R.K.

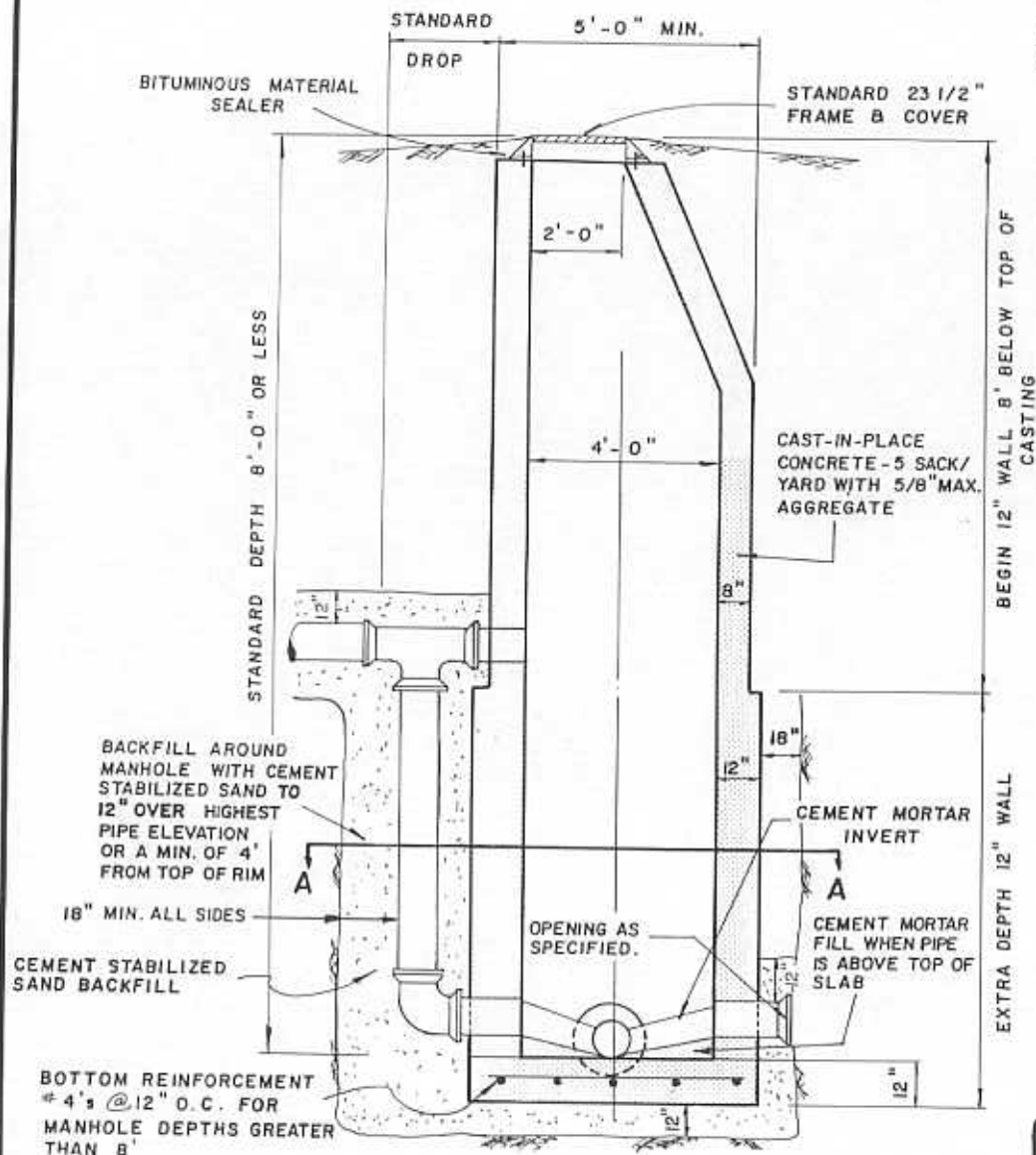
SCALE: N.T.S.

DRAWING NO.: S-104

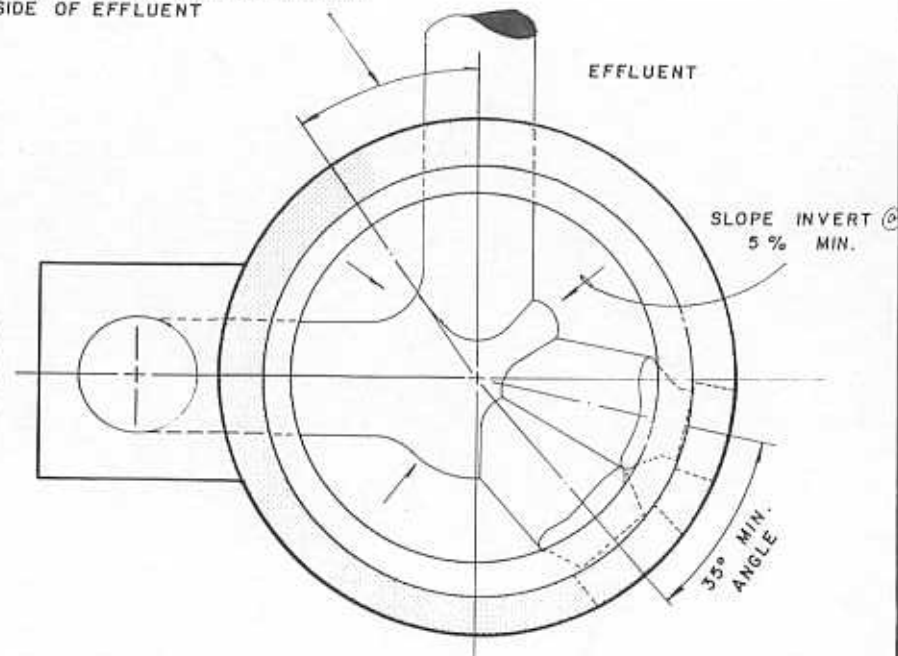
CITY OF SUGAR LAND
DEPARTMENT OF PUBLIC WORKS

**SANITARY SEWER
BEDDING & BACKFILL**

(FLOWLINE GREATER THAN 8' DEEP)



INFLUENTS MAY BE LOCATED AT ANY ANGLE PAST 35° EITHER SIDE OF EFFLUENT



SECTION "A-A"

Notes:

1. All sanitary manhole covers shall be labeled as "Sanitary Sewer".
2. Minimum elevation of top of all influent lines shall be equal to top of the effluent line. Shape invert to match all lines.
3. Manholes may be constructed using precast 48" R.C.P. (Class III), and precast cone and bottom. Brick will not be allowed.
4. Inside of all manholes shall be coated with Ipagard Epoxy, Thane Coat FE 100, or approved equal, applied in accordance with the manufacturer's recommendation. (40 mil minimum thickness)

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APPROVED BY: D.D.P.

DESIGN BY: K.R.K.

SCALE: N.T.S.

DRAWING NO.: S-105

CITY OF SUGAR LAND
DEPARTMENT OF PUBLIC WORKS

**SANITARY SEWER
MANHOLE**